

AAK1 (H-140): sc-134662

BACKGROUND

Adaptor-related protein complex 2 (AP-2 complexes) operates during receptor-mediated endocytosis to initiate clathrin assembly, associates with membrane-bound receptors and mobilizes endocytic accessory factors. AAK1 (AP2 associated kinase 1), also known as adaptor-associated kinase 1, is a 961 amino acid protein belonging to the protein kinase superfamily and the serine/threonine protein kinase family. Encoded by a gene that maps to human chromosome 2p13.3, AAK1 participates in ATP and nucleotide binding, protein serine/threonine kinase functions and transferase activity. AAK1 phosphorylates a subunit of the AP-2 complex, which leads to binding of AP-2 to sorting signals in membrane-bound receptors, resulting in receptor endocytosis. AAK1 contains one protein kinase domain, with kinase activity stimulated by clathrin, and exists as two alternatively spliced isoforms.

REFERENCES

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- Takahashi, T., et al. 2006. Endocytic Ark/Prk kinases play a critical role in adriamycin resistance in both yeast and mammalian cells. *Cancer Res.* 66: 11932-11937.
- Henderson, D.M. and Conner, S.D. 2007. A novel AAK1 splice variant functions at multiple steps of the endocytic pathway. *Mol. Biol. Cell* 18: 2698-2706.

CHROMOSOMAL LOCATION

Genetic locus: AAK1 (human) mapping to 2p13.3; Aak1 (mouse) mapping to 6 D1.

SOURCE

AAK1 (H-140) is a rabbit polyclonal antibody raised against amino acids 724-863 mapping at the C-terminus of AAK1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

AAK1 (H-140) is recommended for detection of AAK1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for AAK1 siRNA (h): sc-94850, AAK1 siRNA (m): sc-140731, AAK1 shRNA Plasmid (h): sc-94850-SH, AAK1 shRNA Plasmid (m): sc-140731-SH, AAK1 shRNA (h) Lentiviral Particles: sc-94850-V and AAK1 shRNA (m) Lentiviral Particles: sc-140731-V.

Molecular Weight of AAK1: 104 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


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Try **AAK1 (LW-M11): sc-134242**, our highly recommended monoclonal alternative to AAK1 (H-140).